

WHAT IS CLAIMED IS:

1                   1.       An auditory test instrument comprising:  
2                   an audiometer;  
3                   a plurality of speakers, wherein said speakers are used during testing  
4 procedures and hearing instrument evaluation procedures; and  
5                   means coupled to said audiometer for calibrating said plurality of speakers.

1                   2.       The auditory test instrument of claim 1, wherein said audiometer  
2 further comprises:  
3                   at least one test probe;  
4                   a power supply for supplying power to the auditory test instrument;  
5                   a diagnostic subsystem coupled to said at least one test probe, said  
6 diagnostic subsystem adapted to implement at least one auditory diagnostic test;  
7                   input means adapted to accept commands from a user;  
8                   a display adapted to display results from said at least one auditory  
9 diagnostic test; and  
10                  at least one processor coupled to said diagnostic subsystem and to said  
11 input means.

1                   3.       The auditory test instrument of claim 2, wherein said power supply  
2 is portable and does not require connection to an external power source.

1                   4.       The auditory test instrument of claim 2, wherein said audiometer  
2 further comprises a wireless networking subsystem adapted to wirelessly transmit first  
3 signals via a short distance wireless network to a peripheral electronic device or system  
4 and adapted to receive second signals via said short distance wireless network from said  
5 peripheral electronic device.

1                   5.       The auditory test instrument of claim 2, wherein said at least one  
2 probe is detachably coupled to said audiometer.

1                   6.       The auditory test instrument of claim 2, wherein said at least one  
2 probe is an intelligent probe.

1                   7.       The auditory test instrument of claim 2, wherein said at least one  
2 probe further comprises a memory, wherein probe calibration data is stored in said  
3 memory, said probe calibration data automatically communicated to said audiometer  
4 upon coupling said at least one probe to said audiometer and providing power to said  
5 audiometer.

1                   8.       The auditory test instrument of claim 2, wherein said at least one  
2 probe further comprises a memory, wherein probe configuration data is stored in said  
3 memory.

1                   9.       The auditory test instrument of claim 8, wherein said probe  
2 configuration data is automatically communicated to said diagnostic subsystem and  
3 wherein said at least one auditory diagnostic test is automatically selected in response to  
4 said probe configuration data.

1                   10.      The auditory test instrument of claim 3, wherein said power supply  
2 is rechargeable.

1                   11.      The auditory test instrument of claim 3, wherein said power supply  
2 is rechargeable via a contactless recharging system.

1                   12.      The auditory test instrument of claim 4, wherein said wireless  
2 networking subsystem is a Bluetooth enabled wireless networking subsystem and wherein  
3 said peripheral electronic device or system is a Bluetooth enabled electronic device or  
4 system.

1                   13.      The auditory test instrument of claim 4, wherein said peripheral  
2 electronic device or system is a LAN system.

1                   14.      The auditory test instrument of claim 4, wherein said peripheral  
2 electronic device or system is a device selected from the group of devices consisting of  
3 computers, personal digital assistants, printers, facsimile devices, and cellular telephones.

1                   15.      The auditory test instrument of claim 2, further comprising a  
2 memory, wherein said commands accepted by said input means select a test profile stored  
3 in said memory.

1                   16.     The auditory test instrument of claim 2, further comprising a  
2 memory, wherein said commands accepted by said input means provide access to patient  
3 data stored in said memory.

1                   17.     The auditory test instrument of claim 2, further comprising a  
2 memory, wherein said commands accepted by said input means provide access to office  
3 management tools stored in said memory.

1                   18.     The auditory test instrument of claim 2, wherein said display is  
2 selected from the group of displays consisting of liquid crystal displays, light emitting  
3 polymer displays, electroluminescent displays, active matrix electroluminescent displays,  
4 organic thin film transistor displays, organic light emitting diode displays, amorphous  
5 silicon integrated displays, and pliable display technology displays.

1                   19.     The auditory test instrument of claim 2, wherein said plurality of  
2 speakers are comprised of five speakers.

1                   20.     The auditory test instrument of claim 2, wherein said plurality of  
2 speakers are wirelessly coupled to said audiometer.

1                   21.     A method of calibrating an auditory test instrument, comprising the  
2 steps of:

3                   coupling a plurality of speakers to an audiometer;

4                   coupling a microphone to said audiometer;

5                   automatically emitting a plurality of frequencies and timing signals  
6 through each of said plurality of speakers, wherein said automatic emitting step is  
7 controlled by said audiometer;

8                   automatically calculating speaker levels and timing delays for each of said  
9 plurality of speakers, wherein said automatic calculating step is controlled by said  
10 audiometer; and

11                  automatically calibrating individual speakers with a multi-band equalizer,  
12 wherein said automatic calibrating step is controlled by said audiometer and wherein said  
13 multi-band equalizer is integrated into said audiometer.